

CLAIMS:

1. Information carrier, comprising a disc (1; 101; 201; 301; 401) which is provided with at least one data layer (2; 102; 202; 302; 403) for optically reading and/or writing information, wherein the disc comprises an annular clamping part (C), to be held by a clamper (121) during use, wherein the disc (1; 101; 201; 301; 401) comprises at least one
5 integrated circuit (3; 103; 203; 303; 403), wherein said integrated circuit (3; 103; 203; 303; 403) comprises a first communicator (4; 104; 204; 304; 404) for communication with at least a second, external, communicator (11; 111; 211; 311; 411) during use, wherein the first communicator (4; 104; 204; 304; 404) extends in a centre area (5, 6; T) which is enclosed by
said annular clamping part (C).

10 2. Information carrier, for instance of the type according to claim 1, comprising a disc (1; 101; 201; 301; 401) which is provided with at least one layer (2; 102; 202; 302; 403) for optically reading and/or writing information, wherein the disc (1; 101; 201; 301; 401) comprises at least one integrated circuit (3; 103; 203; 303; 403), wherein said integrated
15 circuit (3; 103; 203; 303; 403) comprises a first communicator (4; 104; 204; 304; 404) for communication with at least a second, external, communicator (11; 111; 211; 311; 411) during use, wherein the first communicator (4; 104; 204; 304; 404) extends at least in the central point of the disc (1; 101; 201; 301; 401).

20 3. Information carrier according to claim 1, wherein the first communicator (4; 104; 204; 304; 404) extends in an annular transition part (T) of the disc.

4. Information carrier according to any one of the preceding claims, wherein
said first communicator (4; 104) is part of said integrated circuit (3; 103).

25 5. Information carrier according to any one of the preceding claims, wherein said integrated circuit (3; 103) is an unbonded chip.

6. Information carrier according to any one of the preceding claims, wherein the integrated circuit (3) is located at least in the centre area or central point of the disc (1).

7. Information carrier according to any one of the preceding claims, wherein the disc (1) is provided with a central bridge part (5), wherein at least said first communicator (4) is located on or in said bridge part (5).

8. Information carrier according to any one of the preceding claims, wherein said at least one layer (2; 102) for optically reading and/or writing information extends outside the centre area of the disc (1; 101).

9. Information carrier according to any one of the preceding claims, wherein said first communicator comprises at least an antenna (4; 104) for receiving and/or transmitting electromagnetic signals.

10. Information carrier according to any one of the preceding claims, wherein said first communicator comprises at least an optical transmitter and/or receiver, for instance a photo diode, for transmitting and/or receiving optical signals.

11. Information carrier according to any one of the preceding claims, wherein the disc (1) is arranged to be rotated about a virtual rotation axis (A) during use for reading and/or writing said information, wherein said rotation axis extends through the central point of the disc (1).

12. Information carrier according to any one of the preceding claims, wherein said integrated circuit is located on a first side of the disc (1), for instance on the bottom of a blind hole (6), which blind hole (6) extends in the first side of the disc.

13. A device for recording and/or reproducing information on/from at least one data layer of a rotatable disc, wherein the device (50) comprises at least a second communicator (11; 111; 211; 311; 411) for communicating with at least a first communicator (4; 104; 204; 304; 404) of a disc (1; 101; 201; 301; 401) one according to any of the preceding claims.

14. A device according to claim 13, wherein said second communicator (11) is arranged to send and/or transmit data to the centre area and/or the central point of a disc (1; 101) during rotation of the disc by said device (50).

5 15. A device according to claim 13 or 14, wherein said second communicator comprises a coil (11; 111; 211; 311).

16. A device according to any one of claims 13-15, comprising a clamper (21; 121; 221; 321; 421) and/or turntable (22; 122; 222; 322; 422) which is arranged for holding a
10 disc by a clamping part (C) of the disc, wherein preferably said clamping part (C) is an annular disc part.

17. A device according to claim 16, wherein said second communicator is located substantially outside said clamper and/or turntable.

15 18. A device according to claim 16, wherein said second communicator is located substantially within said clamper and/or turntable.

19. A device according to claim 15 and 16, wherein the outer diameter of said coil
20 (11; 111; 411) is smaller than an inner diameter of the clamping part (C) of said disc.

20. A device according to claim 16, wherein the clamper and/or turntable comprises a central aperture (25), wherein said second communicator (11) is located within said central aperture (25) during use.

25 21. A device according to any one of claims 13-20 for use in combination with a disc according to claim 12, wherein said second communicator (111) is positioned such, that the second communicator (111) is arranged opposite the first side of the disc (101) during use.

30 22. A device according to any one of claims 13-20 for use in combination with a disc according to claim 12, wherein said second communicator (211) is positioned such, that the second communicator is arranged opposite a second side of the disc (201) during use, which second disc side faced away from said first disc side.

23. A device according to any one of claims 12-22, wherein the second communicator comprises a dipole antenna (411).

5 24. A device according to claim 23, wherein the dipole antenna (411) is substantially circular.

25. A device according to claim 23 or 24, wherein the dipole antenna comprises at least two substantially circular, concentric antenna arms (411a, 411b), wherein the antenna
10 arms are (411a, 411b) concentric with the path of a respective disc (401) during use of the device (450) in combination with the disc (401), wherein the antenna arms are dimensioned such, that the radius of the path of a first communicator (404) of the disc (401) is larger than the radius of the inner antenna arm (411b), and smaller than the radius of the outer antenna arm (411a) during use.

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26. A method for manufacturing an information carrier, wherein a disc (1) is being injection-moulded such, that the disc (1) comprises no central aperture, wherein a central part of the disc (1) is provided with at least one integrated circuit (3), comprising a first communicator (4) for communication with at least a second, external, communicator (11)
20 during use.

27. A method for manufacturing an information carrier, wherein a disc (1) is being injection-moulded such, that the disc (1) comprises a central aperture, wherein a bridge part is applied to the disc for bridging at least part of the central aperture, the bridge part is being
25 provided with at least one integrated circuit (3), comprising a first communicator (4) for communication with at least a second, external, communicator (11) during use.